

PATENT Customer No. 22,852 Attorney Docket No. 05725.0782-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:)
Sandrine DECOSTER et al.) Group Art Unit: 1617
Application No.: 09/692,749)) Examiner: G. Yu
Filed: October 20, 2000))
For: COSMETIC COMPOSITIONS COMPRISING AT LEAST ONE SILICONE COPOLYMER AND AT LEAST ONE ADDITIONAL SILICONE, AND USES THEREOF) Confirmation No.: 7073)))

Attention: Mail Stop Appeal Brief-Patents

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER BOARD RULE § 41.37

In support of the Notice of Appeal filed November 15, 2004, and further to Board Rule 41.37, Appellants present this brief and enclose herewith a check for the fee of \$500.00 required under 37 C.F.R. § 1.17(c).

This Appeal Brief is being filed concurrently with a petition for an Extension of Time for two months, and the appropriate fee.

This Appeal responds to the May 19, 2004, final rejection of claims 1-112.

If any additional fees are required or if the enclosed payment is insufficient,

Appellant requests that the required fees be charged to Deposit Account No. 06-0916.

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I. REAL PARTY IN INTEREST

L'Oréal S.A. is the real party in interest, as indicated by the assignment in its name, recorded at Reel 011514, Frame 0740.

II. RELATED APPEALS AND INTERFERENCES

In accordance with 37 C.F.R. § 41.37(c)(1)(ii), Appellants advise the Board of Patent Appeals and Interferences (the "Board") of the following pending appeals, which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the instant appeal:

Appeal No. 2003-2140, Ex parte Sandrine DECOSTER et al., Application No. 09/692,716, in which, per Vacatur and Remand to the Examiner dated August 25, 2004, Appellants' reply brief was remanded to the Examiner for consideration. A copy of the Board's August 25, 2004 decision is appended herewith.

The Appeal of In re Application of Sandrine DECOSTER et al., Application No. 09/692,155, in which a Reply Brief and a Request for Oral Hearing was filed on December 6, 2004.

III. STATUS OF CLAIMS

Claims 1-112 are pending in this application.

Claims 1-112 have been finally rejected by the Examiner, and Appellants appeal the rejection of those claims. The attached Appendix contains a clean copy of the claims involved in the appeal, *i.e.*, claims 1-112.

IV. STATUS OF AMENDMENTS

All amendments have been entered. No amendments under 37 C.F.R. § 1.116 have been filed.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention relates to novel cosmetic compositions comprising, in a cosmetically acceptable medium, at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10⁶ to 100 x 10⁶ cP and at least one additional silicone. Specification page 1, lines 1-4. Specifically, the inventive compositions comprise, in a cosmetically acceptable medium, at least one silicone copolymer resulting from the addition reaction, in the presence of a catalyst, of:

- (a) at least one polysiloxane of formula (I):

$$R_{1} \longrightarrow Si \longrightarrow O \longrightarrow Si \longrightarrow R_{2}$$

$$R_{2} \longrightarrow R_{2}$$

$$R_{2} \longrightarrow R_{2}$$

$$R_{2} \longrightarrow R_{2}$$

$$R_{2} \longrightarrow R_{2}$$

$$R_{3} \longrightarrow R_{4}$$

$$R_{4} \longrightarrow R_{5}$$

$$R_{5} \longrightarrow R_{5}$$

$$R_{6} \longrightarrow R_{1}$$

$$R_{7} \longrightarrow R_{2}$$

in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,

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- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of the polysiloxane (a), wherein:
- at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation;

at least one additional silicone; and at least one cationic surfactant, wherein the at least one additional silicone comprises an insoluble silicone. Specification pages 2, line 17 -page 4, line 12; Specification page 22, line 1 - page 31, line 2; and Specification pages 33-35, Examples 1 and 2.

The invention also relates to a rinse-out conditioner, a leave-in conditioner, a composition for permanent-waving the hair, a composition for straightening the hair, a composition for dyeing the hair, a composition for bleaching the hair, a rinse-out composition to be applied before a procedure chosen from dyeing, bleaching, permanent-waving and straightening the hair, a rinse-out composition to be applied after a procedure chosen from dyeing, bleaching, permanent-waving and straightening the hair, a rinse-out composition to be applied between the two steps of a permanent-waving operation, a rinse-out composition to be applied between the two steps of a hair-straightening operation, a washing composition for the body, an aqueous lotion, an aqueous-alcoholic lotion, a gel, a milk, a cream, an emulsion, a thickened lotion, a mousse, or a detergent composition, comprising the inventive compositions as defined above. Specification page 32, line 11 - page 33, line 4. In particular, a composition of

the invention can be a rinse-out conditioner for hair. Specification pages 33-35, and Examples 1 and 2.

It is known to use conditioners, such as cationic polymers or silicones, in compositions for washing or caring for keratin materials, such as the hair, in order to help ease the disentangling of hair and to give softness and suppleness. Specification page 1, lines 9-12. However, certain undesirable cosmetic effects can accompany the use of cationic polymers or silicones, such as lankness of hairstyle, lack of smoothness, and, in addition, the cationic polymers can build up over time, leading to the hair feeling heavy or stiff. Specification page 1, lines 12-21. The compositions of the present invention result in products that can overcome at least one of the drawbacks of the prior art, while at the same time retaining at least one of the other beneficial properties associated with conditioner based compositions. Specification page 2, lines 1-13.

The invention further relates to a process of washing, caring for, or treating keratin material comprising applying to the keratin material a composition as defined above, and optionally rinsing the composition out with water. Specification page 32, lines 8-14. For example, when the inventive composition is applied to the skin in the form of a bubble bath or shower gel, the composition can provide an improvement in the softness of the skin. Specification page 2, lines 14-16.

Finally, the invention relates to a process for manufacturing the cosmetic products as defined above. Specification page 1, line 21 - page 2, line 2.

VI. GROUNDS OF REJECTION

A. Claims 1-14 and 41-104 stand provisionally rejected under the judicially created doctrine of obviousness-type double-patenting as being unpatentable over claims 1-83 of co-pending Application No. 09/692,360; claims 1-95 of co-pending Application No. 09/692,155; and claims 1-16, 37-104 of co-pending Application No. 09/692,716. See Final Office Action dated May 19, 2004, at 8-9.

,D,

- B. Claims 1-31, 38-67, and 94-112 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dalle *et al.* (EP 0874017) ("Dalle") in view of Dubief *et al.* (U.S. Pat. No. 5,650,383) ("Dubief '383") and Restle *et al.* (U.S. Pat. No. 6,039,936) ("Restle"). See Final Office Action dated May 19, 2004, at 2-5.
- C. Claim 32 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle combination further in view of Grollier *et al.* (U.S. Patent No. 5,063,051) (Grollier '051). See Final Office Action dated May 19, 2004, at 5.
- D. Claim 33 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle/Grollier '051 combination further in view of Grollier *et al.* (U.S. Patent No. 4,957,732) ("Grollier '732"). See Final Office Action dated May 19, 2004, at 5-6.
- E. Claims 34-37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle/ Grollier '051/Grollier '732 combination further in view of Dubief *et al.* (U.S. Patent No. 6,011,126) ("Dubief '126"). See Final Office Action dated May 19, 2004, at 6-7.
- F. Claims 68-93 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle/ Grollier '051/Grollier '732/ Dubief '126

combination further in view of Inman (U.S. Patent No. 5,948,739) ("Inman"). See Final Office Action dated May 19, 2004, at 7-8.

VII. ARGUMENT

Each claim of the present application is separately patentable, and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. The arguments set forth below are arranged under separate subheadings, and in accordance with 37 C.F.R. § 41.37(c)(1)(vii) these subheadings indicate the claims that are argued separately.

A. The Double Patenting Rejections

Appellants respectfully submit that if the standing double patenting rejections are the final barrier for claim allowance after the Board has issued a decision, then Appellants will file a Terminal Disclaimer at that time.

B. The Examiner has failed to establish a prima facie case of obviousness under 35 U.S.C. § 103(a)

Several basic factual inquires must be made in order to determine the obviousness or non-obviousness of claims of a patent application under 35 U.S.C. § 103. These factual inquiries, set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), require the Examiner to:

- (1) Determine the scope and content of the prior art;
- (2) Ascertain the differences between the prior art and the claims in issue:
- (3) Resolve the level of ordinary skill in the pertinent art; and
- (4) Evaluate evidence of secondary considerations.

The obviousness or nonobviousness of the claimed invention is then evaluated in view of the results of these inquiries. *Graham*, 383 U.S. at 17-18, 148 USPQ 467.

Thus, in order to carry the initial burden of establishing a prima facie case of obviousness that satisfies the *Graham* standard, the Examiner must show that the prior art reference must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Examiner must also show that there is some suggestion or motivation, either in the reference or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). "Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 1998) (citations omitted). In addition, the suggestion or motivation "must be found in the prior art reference, not in the Applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

The threshold for establishing a motivation or suggestion to modify a prior art reference is high. The Federal Circuit has clearly stated that the evidence of a motivation or suggestion to modify a reference must be "clear and particular." *In re Dembicziak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Further, the Examiner can satisfy the burden of establishing a prima facie case of obviousness "only by showing some <u>objective teaching</u> in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to [modify or] combine the relevant teachings of the references." *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) (citations omitted) (emphasis added). The Federal Circuit has reaffirmed the Examiner's high burden to establish a prima facie case of obviousness and has emphasized the requirement of specificity. *See Kotzab*,

217 F.3d at 1370, 55 USPQ2d, at 1317; see also In re Sang-Su Lee, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

The Examiner has not established a *prima facie* case of obviousness with respect to the presently appealed claims. In particular, the references cited by the Examiner in the appealed rejections do not teach or suggest all of the claim limitations, nor is there any suggestion or motivation, either in the cited references or in the knowledge generally available to one of ordinary skill in the art, to modify or combine references, and the Examiner has not shown a reasonable expectation of success in making a combination of the references. See M.P.E.P. § 2143. Thus, the Examiner has failed to meet any, let alone all three criteria required for a prima facie showing of obviousness.

1. The Rejection of Claims 1-31, 38-67, and 94-112 in view of the Dalle/Dubief '383/Restle combination is improper

The Examiner has rejected claims 1-31, 38-67, and 94-112 under 35 U.S.C. § 103(a) as being unpatentable over Dalle *et al.* (EP 0874017) ("Dalle") in view of Dubief *et al.* (U.S. Pat. No. 5,650,383) ("Dubief '383") and Restle *et al.* (U.S. Pat. No. 6,039,936) ("Restle"). The Examiner asserts that, "Dalle teaches silicone- in- water emulsions comprising the polysiloxanes of formula (I) and at least one surfactant among anionic, nonionic, amphoteric, and cationic surfactants." *Final Office Action dated May* 19, 2004, at 3. Although the Examiner admits that Dalle does not teach the additional silicone that is insoluble as recited in the claims, she contends that Dubief '383 remedies this deficiency because it "teaches composition[s] for washing and rinsing hair, which comprise water-insoluble silicone in an aqueous medium and surfactants" and that the "polyorganosiloxanes . . . are disclosed in col. 2, line 66 - col. 6, line 8."

Final Office Action dated May 19, 2004, at 3-4. The Examiner further asserts that "Restle et al. teach an oil-in-water emulsion comprising a silicone surfactant and at least one cationic amphiphilic lipid that is a quaternary ammonium salt of formulas (IV) - (VII) and their constituents in the instant claims 41-67." *Id* at 4.

Based on this combination of references, the Examiner has concluded that "[a]II components are known in the art. Nothing unexpected or nonobvious is seen in combining old and well-known compounds for the same use." *Id.* at 5. In addition, the Examiner turns the obviousness standard on its head by asserting that "there is no teaching or suggestion, either expressly or implicitly, that the Dalle silicone copolymer should not be added with the Dubief ['383] composition." *Advisory Action dated Oct.* 6, 2004, at 3. Such a statement is both factually wrong and legally improper.

Appellants respectfully contend that the rejections are improper for at least the following reasons. First, Appellants point out that the claims relate to a cosmetic composition comprising

- (1) at least one silicone copolymer of a specific viscosity,
- (2) at least one additional silicone comprising an insoluble silicone, and
- (3) at least one cationic surfactant.

Thus, the claimed invention differs from Dalle, Dubief '383, and Restle in many ways, for example, by possessing additional benefits resulting from its additional components. These benefits, including those associated with the additional silicone, are not suggested by the references relied on by the Examiner in a manner that would have motivated one of ordinary skill in the art to combine and modify the teachings of Dalle, Dubief '383, and Restle.

An obviousness rejection based on a combination of references requires the references to suggest the desirability of the combination. See M.P.E.P. § 2143.01. As the Federal Circuit has noted, "case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation" of the art. Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. The Examiner must make particular findings as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected the components of the claimed invention for combination in the manner claimed. See Kotzab, 217 F.3d at 1371, 55 USPQ2d at 1318.

Dubief '383 teaches an insoluble silicone in an emulsion comprising a copolymer of diallyldialkylammonium and of an anionic monomer. Appellants respectfully assert that the teaching in Dubief '383 of the "polyorganosiloxanes . . . disclosed in col. 2, line 66 - col. 6, line 8," *Final Office Action dated Jun. 4, 2003*, at 3, is cumulative of Dalle, and thus is not a teaching that cures the deficiencies of Dalle. In contrast, the presently claimed invention recites an additional insoluble silicone <u>separate and distinct</u> from the polyorganosiloxanes comprising the part of the copolymers of the emulsion of Dubief '383.

The Examiner argues that Dubief '383 has a teaching that would motivate its combination with Dalle, specifically that "Dubief ['383] also teaches that cationic surfactants or additional silicones may be added in the invention. See col. 7, lines 56-67." Final Office Action dated May 19, 2004, at 9. Appellants respectfully disagree and argue that Dubief '383 does not teach, motivate or suggest a likelihood of success in

combining an insoluble silicone with a polyorganosiloxane emulsion. In fact, Dubief '383 specifically teaches away from the addition of an insoluble silicone.

In particular, the passage from Dubief '383 that the Examiner relies on states that "... compositions according to the invention may optionally also contain other agents whose effect is to improve the properties of keratinous matter . . . on condition that they do not impair the stability of the compositions, such as cationic surface-active agents . . . or else silicones which are soluble in the mixture. Dubief '383, col. 7, lines 56-67 (emphasis added). Thus, Dubief '383 teaches only the possible addition of silicones that are soluble in the mixture, and which do not impair the stability of the compositions. On the contrary, the presently claimed invention recites an additional silicone that is insoluble. See, e.g., claim 1. In an obviousness determination, the Examiner must consider the reference teachings as a whole, taking into consideration portions that would lead away from the claimed invention. See M.P.E.P. § 2141.02 (citing W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1984)); see also In re Grasselli. 713 F.2d 731. 743. 2189 USPQ 769. 779 (Fed. Cir. 1983). As discussed in the following section, the Examiner's proposal for modifying the prior art to obtain the claimed invention causes the art to become inoperable or destroys its intended function, thus precluding the requisite motivation from being present. See In re Fritch, 972 F.2d 1260, 1265-66, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

In response to Appellants' repeated arguments that there is no motivation to combine and modify the teachings of Dalle, Dubief ['383] and Restle, the Examiner cites *In re Kerkhoven*, 626 F.2d 846, 205 USPQ 1069 (CCPA 1980) stating that "one of ordinary skill in the art would have been motivated to add the ingredients of Dalle and

Dubief to make the known hair care compositions such as shampoo and conditioner." *Final Office Action dated May 19, 2004*, at 9.

Kerkhoven is not applicable to the present case. In *Kerkhoven*, the appealed claims were directed to a process for forming a detergent, comprising forming two aqueous slurries, where one slurry was predominantly an anionic detergent and the other was primarily a nonionic detergent, independently or simultaneously drying the slurries, and mixing the resulting products. *See Kerkhoven*, 626 F.2d at 847, 205 USPQ at 1070. It was acknowledged that prior art detergents comprised a mixture of anionic fatty acid soaps, anionic detergents, and nonionic detergents. *Kerkhoven*, 626 F.2d at 848, 205 USPQ at 1071. To make the known detergents, all of the ingredients were combined together in one slurry and then spray dried. *Id.* Therefore, the court agreed with the examiner's conclusion that the claims at issue required "no more than the mixing together" of two conventional detergents to make a third detergent composition set forth "prima facie obvious subject matter." *Kerkhoven*, 626 F.2d at 849, 205 USPQ at 1071 (emphasis added).

There are several key differences between the claimed invention and the invention at issue in *Kerkhoven*. First, the end product in *Kerkhoven* was the same as the two combined ingredients: a detergent. In the claimed invention, the claimed elements are combined to create a conditioner. How individual constituents react to form an end product is not akin to *Kerkhoven* and does not support the Examiner's conclusion of obviousness. This position is supported by the fact that the literal combination of Dalle and Dubief '383 would not give rise to the claimed invention. Thus, the Examiner's application of *Kerkhoven* is inapposite to the present case.

Moreover, the combination of Dalle/Dubief '383/Restle cited by the Examiner fails to contain all elements of the invention, because each of the cited references only teach the need for one silicone. In contrast, the claimed invention is a composition comprising a silicone copolymer emulsion having a particularly defined viscosity and a cationic surfactant, as well as an additional silicone that is insoluble. The cited references only discuss and disclose compositions requiring only one silicone. Dubief '383 may teach the optional addition of a soluble silicone, but, as discussed above, the teaching of Dubief '383 cannot be construed to teach or motivate the combination of the claimed invention, because it actually teaches away from the claimed invention. Thus, even if the three references were combined, they do not result in the claimed invention: a composition with a cationic silicone emulsion comprising an additional silicone that is insoluble, and at least one cationic surfactant. For at least these reasons, Appellants believe this rejection is improper, and respectfully ask the Board to reverse it.

2. The Examiner's Treatment of the Experimental Results and Declaration under 37 C.F.R. § 1.1.32 is Improper

In addition to and in support of the arguments made above, Appellants have also submitted evidence to the Examiner that the compositions of the prior art exhibit substantially inferior properties, namely ease of disentangling, than does the claimed composition. See Evidence Appendix of Declaration under 37 C.F.R. § 1.132. As the tests indicate, and the Declarant attests to, this result is directly attributed to the use of an insoluble silicone, as claimed, and taught away from in the primary reference.

The Examiner has not given the proper consideration to the Experimental Results and Declaration under 37 C.F.R. § 1.132 submitted by Appellants on March 4, 2004. In particular, Appellants respectfully assert that the Examiner has both

objectively misread and subjectively under-valued the submission. For example, the Examiner first stated that "the formulation table does not show how much or what insoluble silicone was actually used." *Final Office Action dated May 19, 2004*, at 10. During prosecution, Appellants pointed out to the Examiner that the row of the table describing the insoluble silicone used "broke" across two pages. However, as discussed both with the Examiner's supervisor during a telephone conference on July 7, 2004, and in the Request for Reconsideration filed on August 26, 2004 at 4, it is still plainly visible that one gram of polydimethylsiloxane (DC200 Fluid-60,000CS from Dow Corning) was used only in Composition A (the invention). Polydimethylsiloxane is an insoluble silicone, and while its label as such appeared on the next page, its nature does not change. Despite pointing these facts out to the Examiner, she still states that the "only type of silicone in Composition A, [appellants'] invention, is the Dalle silicone copolymer." *Advisory Action dated Oct. 6, 2004*, at 2.

Moreover, the Examiner asked "[w]as the Dubief insoluble silicone used in Composition A?" *Final Office Action dated May 19, 2004*, at 10. Appellants respectfully submit that such a question underscored the Examiner's own confusion over the asserted rejection. Appellants again clarified for the Examiner that as discussed in Appellants' responses of record, <u>Dubief '383 does not teach an additional insoluble silicone</u>. Hence, Example A (the invention) comprised an insoluble silicone of the invention, while the comparative example representing Dubief '383, Example B, comprised one gram of a <u>water soluble silicone</u>. *See* Declaration under 37 C.F.R. § 1.132, at 2-3. In response to Appellants' description of the comparative Experimental Results, the Examiner argues for the first time that "[t]he 'silicones which are soluble in

the mixture' is not limited to water-soluble silicones only." Advisory Action dated Oct. 6, 2004, at 3 (emphasis in original). By untimely making this unsupported assertion in an Advisory Action, the Examiner prevented Appellants from adequately responding on the record, and thus fully rebutting the assertion in this Appeal Brief. The Examiner's casual response to costly comparative testing further highlights her unwillingness to advance prosecution of this application by resolving issues before being sent to the Board.

The Examiner continued to evidence her apparent misunderstanding of the experimental results and the reference relied upon for the rejection by stating that "assuming that same 'insoluble silicone' were used in both Compositions A and B, the resulting data shows that treatment with the composition comprising the Dalle silicone emulsion produces better disentangling than the treatment with the other composition which comprises Abilquat 3434." *Final Office Action dated May 19, 2004*, at 10-11. It should have been abundantly clear to the Examiner based upon the arguments made by Appellants throughout prosecution that the insoluble silicone was <u>not</u> used in both Composition A and Composition B. Composition A represents the invention, thus the insoluble silicone was only used in Composition A. As discussed above, Composition B does not contain a second insoluble silicone.

Finally, although the Examiner admits that Composition A gives better results than Composition B, the Examiner "takes the position that the 22% improvement which is assessed by a subjective opinion does not amount to a surprising or unexpected, greater than expected results in view of the strong teachings of the references." *Final Office Action dated May 19, 2004*, at 11. Appellants respectfully point out that the

"strong teachings" of the references are also subjective, as many hair care results are, due to the nature of the intended results. For example, hair care properties are generally performed using subjective, tactile testing performed by highly trained and experienced evaluators. Because such tests are the standard in the art, a 22% improvement can hardly be ignored, or considered insignificant, especially in light of the Examiner's misunderstanding of both the references and the comparative data that she is relying on to maintain the rejections.

As discussed in previous responses of record, the claimed invention differs from Dalle in many ways, including that it possesses additional benefits resulting from its additional components. These benefits, for example, those associated with the additional silicone, are <u>not</u> suggested or taught by either Dalle or Dubief '383 <u>in a manner that would have motivated one of ordinary skill in the art to combine and modify the teachings of Dalle and Dubief '383</u>. The experimental results submitted with the Declaration under 37 C.F.R. § 1.132 further emphasize this point.

Accordingly, for the reasons set forth above, the Examiner's rejection under 35 U.S.C. § 103(a) of claims 1-31, 38-67, and 94-112 is improper and Appellants respectfully request its reversal.

3. The Examiner's rejection of Claim 32 in view of the Dalle/Dubief '383/Restle combination further in view of Grollier '051 is improper

The Examiner has rejected claim 32 under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle combination further in view of Grollier *et al.* (U.S. Patent No. 5,063,051) (Grollier '051). See Final Office Action dated May 19, 2004, at 5. The Examiner has admitted that the combination of Dalle, Dubief '383, and

Restle "fail to teach the polysiloxanes in claim 32" and thus cited Grollier '051 as disclosing "a cosmetic hair treatment composition comprising a polyorganosiloxane containing a hydroalkyl functional group of formula (IX) of the instant claim 32." *Id.* The Examiner then concluded that it "would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by adding the polyorganosiloxane of formula (X), as motivated by Grollier, because of the expectation to have successfully produced a hair treatment composition that provides shine, lightness, and volume to the hair." *Id.*

As the Examiner has failed to satisfy her burden under 35 U.S.C. § 103, with respect to the primary combination of references, *i.e.*, Dalle/Dubief '383/Restle, Appellants respectfully submit that Grollier '051 does not correct the deficiencies in the Examiner's argumentation. Accordingly, this rejection is improper.

4. The Examiner's rejection of Claim 33 in view of the Dalle/Dubief '383/Restle/Grollier '051 combination further in view of Grollier '732 is improper.

The Examiner has rejected claim 33 under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle/Grollier '051 combination further in view of Grollier *et al.* (U.S. Patent No. 4,957,732) ("Grollier '732"). See Final Office Action dated May 19, 2004, at 5-6. The Examiner has admitted that the combination of Dalle, Dubief '383, Restle and Grollier '051 "lack the teaching of using the polyorganosiloxane of claim 33," and thus cited Grollier '732 as describing a "shaving composition comprising polyorgano-siloxane of formula (X) and in claim 33." *Id.* The Examiner then concluded that it "would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references

by adding the polyorganosiloxane disclosed in Grollier ('732), as motivated by Grollier ('732), because of the expectation to have successfully produced an aerosol hair care or shaving composition that is smooth in feel and easy to rinse, retains the quality and stability while being dispensed from the container, and leaves the skin clean and satiny." *Id.* at 6.

As the Examiner has failed to satisfy her burden under 35 U.S.C. § 103, with respect to the primary combination of references, *i.e.*, Dalle/Dubief '383/Restle, Appellants respectfully submit that Grollier '051 and Grollier '732 do not correct the deficiencies in the Examiner's argumentation. Accordingly, this rejection is improper.

5. The Examiner's rejection of Claims 34-37 in view of the Dalle/Dubief '383/Restle/ Grollier '051/Grollier '732 combination further in view of Dubief '126 is improper

The Examiner has rejected claims 34-37 under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle/ Grollier '051/Grollier '732 combination further in view of Dubief *et al.* (U.S. Patent No. 6,011,126) ("Dubief '126"). *See Final Office Action dated May 19, 2004*, at 6-7. The Examiner has admitted that the combination of Dalle, Dubief '383, Restle, Grollier '051, and Grollier '732 "fail to teach the grafted polymer of instant claims 34-37," and thus cited Dubief '126 for disclosing "a cosmetic composition for hair treatment, which comprises a polymer grafted with a non-silicone organic skeleton grafted with polysiloxane monomers, or polysiloxane polymer grafted with non-silicone organic monomers." *Id.* The Examiner then concluded that it "would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by adding the grafted polysiloxane polymer in Dubief ('126), as motivated by the teaching therein,

because of the expectation to have successfully produced a hair care composition with enhanced styling properties." *Id.* at 7.

As the Examiner has failed to satisfy her burden under 35 U.S.C. § 103, with respect to the primary combination of references, *i.e.*, Dalle/Dubief '383/Restle, Appellants respectfully submit that Grollier '051, Grollier '732, and Dubief '126 do not correct the deficiencies in the Examiner's argumentation. Accordingly, this rejection is improper.

6. The Examiner's rejection of Claims 68-93 in view of the Dalle/Dubief '383/Restle/ Grollier '051/Grollier '732/ Dubief '126 combination further in view of Inman is improper

The Examiner has rejected claims 68-93 under 35 U.S.C. § 103(a) as being unpatentable over the Dalle/Dubief '383/Restle/ Grollier '051/Grollier '732/ Dubief '126 combination further in view of Inman (U.S. Patent No. 5,948,739) ("Inman"). *See Final Office Action dated May 19, 2004*, at 7-8. The Examiner has admitted that the combination of Dalle, Dubief '383, Restle, Grollier '051, Grollier '732, and Dubief '126 "do not provide combining the surface-active agents," and thus cited Inman as teaching "aqueous hair conditioning shampoo compositions that contain silicone conditioning agent and a detersive surfactant component." *Id.* at 7. The Examiner then concluded that it "would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by adding the surfactants as taught by Inman because of the expectation to have successfully produced a hair conditioning shampoo composition with a good cleaning property." *Id.* at 8.

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As the Examiner has failed to satisfy her burden under 35 U.S.C. § 103, with

respect to the primary combination of references, i.e., Dalle/Dubief '383/Restle,

Appellants respectfully submit that Grollier '051, Grollier '732, Dubief '126, and Inman

do not correct the deficiencies in the Examiner's argumentation. Accordingly, this

rejection is improper.

VIII. CONCLUSION

For the reasons given above, the Examiner has not established a *prima facie*

case of obviousness with respect to the appealed claims, and has not afforded the

proper weight to the experimental results and declaration submitted by Appellants.

Accordingly, pending claims 1-112 are allowable and reversal of the Examiner's

rejections are respectfully requested.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain

entry of this Appeal Brief, such extension is hereby respectfully requested. If there are

any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith,

including any fees required for an extension of time under 37 C.F.R. § 1.136, please

charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,

GARRETT & DUNNER, L.L.P.

Dated: March 8, 2005

Deborah M. Herzfeld (

(formerly Deborah M. Sharfman)

Reg. No. 52,211

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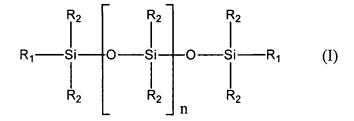


Application No.: 09/692,749 Attorney Docket No.: 05725.0782-00

Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

Rejected claims 1-112:

- 1. (Previously Presented) A cosmetic composition comprising, in a cosmetically acceptable medium, (1) at least one silicone copolymer with a dynamic viscosity ranging from 1×10^6 to 100×10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):



in which:

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1×10^6 mm²/s; and

- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of the polysiloxane (a), wherein:
- at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation,
- (2) at least one additional silicone, and
- (3) at least one cationic surfactant, wherein the at least one additional silicone comprises an insoluble silicone.
- 2. (Original) A composition according to claim 1, wherein R_1 is chosen from a hydrogen atom and aliphatic groups comprising an ethylenic unsaturation.
- 3. (Original) A composition according to claim 2, wherein the aliphatic groups comprising an ethylenic unsaturation are chosen from vinyl, allyl and hexenyl groups.
- 4. (Original) A composition according to claim 1, wherein the groups R₂ are chosen from hydroxyl groups; alkyl groups comprising from 1 to 20 carbon atoms; cycloalkyl groups comprising from 5 to 6 carbon atoms; phenyl groups; alkylaryl groups comprising from 7 to 20 carbon atoms; and can optionally further comprise functional groups chosen from ethers, amines, carboxyls, hydroxyls, thiols, esters, sulfonates and sulfates.
- 5. (Original) A composition according to claim 1, wherein said alkenyl groups are chosen from alkenyl groups comprising from 2 to 10 carbon atoms.
- 6. (Original) A composition according to claim 1, wherein R_2 is a methyl group.

- 7. (Original) A composition according to claim 1, wherein n is an integer ranging from 5 to 5,000.
- 8. (Original) A composition according to claim 1, wherein the compound of type (b) is another polysiloxane of type (a) in which at least one and not more than two groups R_1 of the polysiloxane (b) can react with the groups R_1 of the polysiloxane (a).
- 9. (Original) A composition according to claim 1, wherein, in the presence of a hydrosilylation catalyst, the at least one silicone copolymer is obtained by addition reaction of at least:
 - (a) one α,ω -divinylpolydimethylsiloxane, and
 - (b) one α , ω -dihydrogenopolydimethylsiloxane.
- 10. (Original) A composition according to claim 9, wherein the hydrosilylation catalyst is a platinum catalyst.
- 11. (Original) A composition according to claim 1, wherein said at least one silicone copolymer is in the form of an aqueous emulsion.
- 12. (Original) A composition according to claim 1, wherein the at least one silicone copolymer is essentially non-crosslinked.
- 13. (Original) A composition according to claim 1, wherein the at least one silicone copolymer is present in an amount ranging from 0.05% to 10% by weight relative to the total weight of the composition.
- 14. (Original) A composition according to claim 13, wherein the at least one silicone copolymer is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

- 15. (Previously Presented) A composition according to claim 1, wherein the at least one additional silicone comprises insoluble silicones chosen from volatile and non-volatile polyorganosiloxanes.
- 16. (Original) A composition according to claim 1, wherein said at least one additional silicone is in a form chosen from emulsions, nanoemulsions and microemulsions.
- 17. (Original) A composition according to claim 15, wherein said at least one additional silicone is chosen from oils, waxes, resins and gums.
- 18. (Original) A composition according to claim 15, wherein said volatile polyorganosiloxanes are chosen from cyclic polyorganosiloxanes comprising from 3 to 7 silicon atoms, and linear volatile silicones comprising 2 to 9 silicon atoms, with a kinematic viscosity of less than or equal to 5×10^{-6} m²/s at 25° C.
- 19. (Original) A composition according to claim 18, wherein said volatile polyorganosiloxanes are chosen from cyclic polyorganosiloxanes comprising from 4 to 5 silicon atoms.
- 20. (Original) A composition according to claim 18, wherein said cyclic polyorganosiloxanes are chosen from octamethylcyclotetrasiloxane, dimethylsiloxane/methylalkylsiloxane cyclocopolymers, and mixtures of cyclic silicones with organosilicon compounds.
- 21. (Original) A composition according to claim 20, wherein said dimethylsiloxane/methylalkylsiloxane cyclocopolymers are chosen from cyclocopolymers of the following structure:

with D:
$$CH_3$$
 CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 CH_3 CH_3

- 22. (Original) A composition according to claim 20, wherein said mixtures of cyclic silicones with organosilicon compounds are chosen from a mixture of octamethylcyclotetrasiloxane and tetratrimethylsilylpentaerythritol and a mixture of octamethylcyclotetrasiloxane and oxy-1,1'-bis(2,2,2',2',3,3'-hexatrimethylsilyloxy)neopentane.
- 23. (Previously presented) A composition according to claim 18, wherein said linear volatile silicone is decamethyltetrasiloxane.
- 24. (Original) A composition according to claim 15, wherein said non-volatile polyorgano-siloxanes are chosen from polyalkylsiloxanes, polyarylsiloxanes, polyaryl-siloxanes, silicone gums, silicone resins, and polyorgano-siloxanes modified with organofunctional groups.
- 25. (Original) A composition according to claim 24, wherein:(a) the polyalkylsiloxanes are chosen from:
- polydimethylsiloxanes comprising trimethylsilyl end groups;
- polydimethylsiloxanes comprising dimethylsilanol end groups; and
- poly(C₁-C₂₀)alkylsiloxanes;
- (b) the polyalkylarylsiloxanes are chosen from:
- linear and branched polydimethylmethylphenylsiloxanes;

- (c) the silicone gums are chosen from polydiorgano-siloxanes with number-average molecular masses ranging from 200,000 to 1,000,000;
- (d) the resins are chosen from resins comprising units chosen from $R_3SiO_{1/2}$, $R_2SiO_{2/2}$, $RSiO_{3/2}$, and $SiO_{4/2}$, wherein R is chosen from hydrocarbon-based groups comprising from 1 to 16 carbon atoms and phenyl groups; and
- (e) the polyorgano-siloxanes modified with organofunctional groups are chosen from silicones comprising at least one organofunctional group attached by way of a hydrocarbon-based radical.
- 26. (Original) A composition according to claim 25, wherein the polydimethylmethylphenylsiloxanes are chosen from polydimethyldiphenylsiloxanes with a kinematic viscosity ranging from 1×10^{-5} to 5×10^{-2} m²/s at 25° C.
- 27. (Previously presented) A composition according to claim 25, wherein the silicone gums are chosen from:
- poly[(dimethylsiloxane)/(methylvinylsiloxane)],
- poly[(dimethylsiloxane)/(diphenylsiloxane)],
- poly[(dimethylsiloxane)/(phenylmethylsiloxane)], and
- poly[(dimethylsiloxane)/(diphenylsiloxane)/(methylvinylsiloxane)] and the following mixtures:
 - mixtures formed from a polydimethylsiloxane which is hydroxylated at the end of the chain and from a cyclic polydimethylsiloxane;
 - mixtures formed from a polydimethylsiloxane gum and from a cyclic silicone;
 and
 - mixtures of polydimethylsiloxanes of different viscosities.

- 28. (Original) A composition according to claim 25, wherein said R of said resins is chosen from C₁-C₄ alkyls and phenyl.
- 29. (Original) A composition according to claim 28, wherein said R of said at least one resin is chosen from methyl.
- 30. (Original) A composition according to claim 24, wherein said polyorgano-siloxanes modified with organofunctional groups are chosen from polyorgano-siloxanes comprising:
- a) at least one group chosen from polyethylenoxy and polypropylenoxy groups optionally comprising C_6 - C_{24} alkyl groups:
- b) substituted and unsubstituted amine groups,
- c) thiol groups,
- d) alkoxylated groups,
- e) hydroxyalkyl groups,
- f) acyloxyalkyl groups,
- g) alkylcarboxylic groups,
- h) 2-hydroxyalkyl sulphonate groups,
- i) 2-hydroxyalkyl thiosulfate groups,
- j) hydroxyacylamino groups, and
- k) quaternary ammonium groups.
- 31. (Original) A composition according to claim 30, wherein said substituted amine groups are chosen from C₁-C₄ alkylamino groups.
- 32. (Original) A composition according to claim 30, wherein said polyorgano-siloxanes comprising hydroxylalkyl groups are chosen from

polyorganosiloxanes comprising at least one hydroxyalkyl function corresponding to formula (IX):

$$R_{3} = \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} = \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} = \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix}$$
 (IX)

in which the radicals R_3 , which may be identical or different, are independently chosen from methyl and phenyl radicals, wherein at least 60 mol% of the radicals R_3 are methyl; the radical R_3 is chosen from divalent C_2 - C_{18} hydrocarbon-based alkylene chain units; p ranges from 1 to 30; and q ranges from 1 to 150.

33. (Original) A composition according to claim 30, wherein said polyorgano-siloxanes modified with acyloxyalkyl groups are chosen from polyorganosiloxanes of formula (X):

$$R_{4} - Si - O - Si$$

in which:

R₄, which may be identical or different, are independently chosen from methyl, phenyl, -OCOR₅ and hydroxyl groups, wherein it is optional for only one of the radicals R₄ per silicon atom to be OH;

 R'_4 , which may be identical or different, are independently chosen from methyl and phenyl; and wherein at least 60 mol% of all of the radicals R_4 and R'_4 are chosen from methyl;

R5 is chosen from C₈-C₂₀ alkyl and C₈-C₂₀ alkenyl groups;

R" is chosen from linear and branched, divalent C₂-C₁₈ hydrocarbon-based alkylene radicals;

r ranges from 1 to 120;

p ranges from 1 to 30;

q ranges from 0 to less than 0.5 p, wherein the sum of p + q ranges from 1 to 30; provided that when the polyorganosiloxanes of formula (X) comprise groups:

such groups are in proportions not exceeding 15% of the sum p + q + r.

- 34. (Original) A composition according to claim 15, wherein said at least one additional silicone is chosen from grafted silicone polymers.
- 35. (Original) A composition according to claim 34, wherein said grafted silicone polymers are chosen from silicones comprising a polysiloxane and a non-silicone organic chain, wherein either the polysiloxane or the non-silicone organic chain is considered the main chain of the polymer and the other is grafted onto said main chain.

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- 36. (Original) A composition according to claim 35, wherein said grafted silicone polymers are chosen from copolymers obtained by radical polymerization starting with a monomer mixture comprising:
- a) 50 to 90% by weight of tert-butyl acrylate;
- b) 0 to 40% by weight of acrylic acid;
- c) 5 to 40% by weight of silicone macromer of formula:

with v being a number ranging from 5 to 700; the weight percentages being calculated relative to the total weight of the monomers.

- 37. (Original) A composition according to claim 34, wherein said grafted silicone polymers are chosen from polydimethylsiloxanes (PDMS) onto which are grafted, via a connecting chain unit of thiopropylene type, mixed polymer units of poly(meth)acrylic acid type and of polyalkyl (meth)acrylate type and polydimethylsiloxanes (PDMS) onto which are grafted, via a connecting chain unit of thiopropylene type, polymer units of polyisobutyl (meth)acrylate type.
- 38. (Original) A composition according to claim 15, wherein the polyorgano-siloxanes are chosen from polyalkylsiloxanes comprising trimethylsilyl end groups, polyalkylsiloxanes comprising dimethylsilanol end groups, polyalkylaryl-siloxanes, mixtures of two PDMSs comprising a gum and an oil of different viscosities, mixtures of organosiloxanes and of cyclic silicones, polyorgano-siloxane

resins, polysiloxanes comprising amine groups and polysiloxanes comprising quaternary ammonium groups.

- 39. (Original) A composition according to claim 1, wherein the at least one additional silicone is present in an amount ranging from 0.001 % to 20% by weight relative to the total weight of the composition.
- 40. (Original) A composition according to claim 39, wherein the at least one additional silicone is present in an amount ranging from 0.01 % to 10% by weight relative to the total weight of the composition.
- 41. (Previously presented) A composition according to claim 1 wherein the at least one cationic surfactant is chosen from:
- A) quaternary ammonium salts of formula (IV) below:

$$\begin{bmatrix} R_1 & & \\ & R_2 & \\ & & R_4 \end{bmatrix}^+ X^- \qquad (IV)$$

in which:

- the radicals R_1 , R_2 , R_3 , and R_4 , which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 30 carbon atoms, and aromatic radicals, wherein the aliphatic radicals optionally comprise hetero atoms, and
- X⁻ is an anion chosen from the group of halides, phosphates, anions derived from organic acids, (C₂-C₆)alkyl sulfates, alkyl sulfonates, and alkylaryl sulfonates;
- B) quaternary ammonium salts of imidazolinium of formula (V) below:

$$\begin{bmatrix} R_6 \\ N \end{bmatrix} \begin{pmatrix} CH_2 - CH_2 - N(R_8) - CO - R_5 \\ R_7 \end{pmatrix}$$
 (V)

in which:

- R_5 is chosen from alkenyl and alkyl radicals comprising from 8 to 30 carbon atoms,
- R₆ is chosen from a hydrogen atom, C₁-C₄ alkyl radicals, and alkenyl and alkyl radicals comprising from 8 to 30 carbon atoms,
- R₇ is chosen from C₁-C₄ alkyl radicals,
- R₈ is chosen from a hydrogen atom and C₁-C₄ alkyl radicals, and
- X⁻ is an anion chosen from halides, phosphates, acetates, lactates, alkyl sulfates, alkyl sulfonates, and alkylaryl sulfonates;
- C) diquaternary ammonium salts of formula (VI):

$$\begin{bmatrix} R_{10} & R_{12} \\ R_{9} & N & (CH_{2})_{3} & N & R_{14} \\ R_{11} & R_{13} & 2X^{-} & (VI) \end{bmatrix}$$

in which:

- R₉ is chosen from aliphatic radicals comprising from 16 to 30 carbon atoms,

- R₁₀, R₁₁, R₁₂, R₁₃ and R₁₄, which may be identical or different, are independently chosen from a hydrogen atom and alkyl radicals comprising from 1 to 4 carbon atoms, and
- X⁻ is an anion chosen from halides, acetates, phosphates, nitrates and methyl sulfates;
- D) quaternary ammonium salts of formula (VII) below comprising at least one ester function:

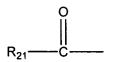
in which:

- R₁₅ is chosen from C₁-C₆ alkyl radicals and C₁-C₆ hydroxyalkyl and C₁-C₆ dihydroxyalkyl radicals;
- R₁₆ is chosen from:
 - acyl groups of the following formula:

wherein R₁₉ is defined below,

- linear and branched, saturated and unsaturated, C₁-C₂₂ hydrocarbon-based radicals, and
- a hydrogen atom;
- R₁₈ is chosen from:

- acyl groups of the following formula:



wherein R₂₁ is defined below,

- linear and branched, saturated and unsaturated, C₁-C₆
 hydrocarbon-based radicals, and
- a hydrogen atom;
- R₁₇, R₁₉ and R₂₁, which may be identical or different, are independently chosen from linear and branched, saturated and unsaturated, C₇-C₂₁ hydrocarbon-based radicals;
- n, p and r, which may be identical or different, are independently integers ranging from 2 to 6;
- y is an integer ranging from 1 to 10;
- x and z, which may be identical or different, are independently integers ranging from 0 to 10; and
- X⁻ is chosen from simple and complex, organic and inorganic anions; and
- provided that the sum x + y + z is from 1 to 15, and that when x is 0, then R_{16} is chosen from linear and branched, saturated and unsaturated, C_1 - C_{22} hydrocarbon-based radicals, and that when z is 0, then R_{18} is chosen from linear and branched, saturated and unsaturated, C_1 - C_6 hydrocarbon-based radicals.
- 42. (Original) A composition according to claim 41, wherein said at least one cationic surfactant is chosen from:
- A) quaternary ammonium salts of formula (IV) below:

$$\begin{bmatrix} R_1 & K_3 \\ R_2 & R_4 \end{bmatrix}^+ X^- \qquad (IV)$$

wherein:

- X⁻ is an anion chosen from halides, (C₂-C₆)alkyl sulfates, phosphates, alkyl and alkylaryl sulfonates, and anions derived from organic acids, and
- i) the radicals R₁, R₂, and R₃, which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 4 carbon atoms, optionally comprising hetero atoms, and aromatic radicals, and
- R_4 is chosen from linear and branched alkyl radicals comprising from 16 to 30 carbon atoms;
- ii) the radicals R₁ and R₂, which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 4 carbon atoms, optionally comprising hetero atoms, and aromatic radicals, and
- R₃ and R₄, which may be identical or different, are independently chosen from linear and branched alkyl radicals comprising from 12 to 30 carbon atoms, wherein said radicals further comprise at least one function chosen from ester and amide functions.
- 43. (Original) A composition according to claim 41, wherein in said quaternary ammonium salts of formula (VII):
- R_{15} is chosen from methyl and ethyl radicals,
- x and y are equal to 1;
- z is equal to 0 or 1;
- n, p and r are equal to 2;
- R₁₆ is chosen from:

wherein R₁₉ is defined below,

- methyl, ethyl and C₁₄-C₂₂ hydrocarbon-based radicals, and
- a hydrogen atom;
- R₁₈ is chosen from:

- wherein R₂₁ is defined below,
- a hydrogen atom; and
- R₁₇, R₁₉ and R₂₁, which may be identical or different, are independently chosen from linear and branched, saturated and unsaturated, C₁₃-C₁₇ hydrocarbon-based radicals.
- 44. (Original) A composition according to claim 43, wherein R_{17} , R_{19} and R_{21} are chosen from linear and branched, saturated and unsaturated C_{13} – C_{17} aliphatic radicals.
- 45. (Original) A composition according to claim 43, wherein the hydrocarbon-based radicals are chosen from linear hydrocarbon-based radicals.
- 46. (Original) A composition according to claim 41, wherein the compounds of formula (VII) are chosen from diacyloxyethyldimethylammonium, diacyloxyethylhydroxyethylmethylammonium, monoacyloxyethyldihydroxyethylmethylammonium, triacyloxyethylmethylammonium and monoacyloxyethylhydroxyethyldimethylammonium salts.

- 47. (Original) A composition according to claim 46, wherein said monoacyloxyethyl-hydroxyethyldimethylammonium salts are chosen from monoacyloxyethyl-hydroxyethyldimethylammonium chloride salts and monoacyloxyethyl-hydroxyethyldimethylammonium methyl sulfate salts.
- 48. (Original) A composition according to claim 43, wherein when R_{16} and R_{18} are chosen from acyl radicals, said acyl radicals are obtained from plant oils chosen from palm oil and sunflower oil.
- 49. (Original) A composition according to claim 41, wherein X⁻ of said quaternary ammonium salts of formula (IV) is an anion chosen from chloride, bromide, iodide, methyl sulfate, acetate, and lactate.
- 50. (Original) A composition according to claim 41, wherein said aromatic radicals of said quaternary ammonium salts of formula (IV) are chosen from aryl and alkylaryl.
- 51. (Original) A composition according to claim 41, wherein said hetero atoms of said quaternary ammonium salts of formula (IV) are chosen from oxygen, nitrogen, sulfur and halogens.
- 52. (Original) A composition according to claim 42, wherein said aliphatic radicals of formula (IV)(ii) are chosen from alkyl, alkoxy, alkylamide, polyoxy(C₂-C₆)alkylene, and hydroxyalkyl radicals comprising from 1 to 4 carbon atoms.
- 53. (Original) A composition according to claim 42, wherein said R_3 and R_4 of formula (IV)(ii) are chosen from (C_{12} - C_{22})alkylamido(C_2 - C_6)alkyl and (C_{12} - C_{22})alkylacetate radicals.

- 54. (Original) A composition according to claim 41, wherein said R_5 of formula (V) is chosen from radicals derived from tallow fatty acid.
- 55. (Original) A composition according to claim 41, wherein in said quaternary ammonium salts of imidazolinium of formula (V):
- R_5 and R_6 , which may be identical or different, are independently chosen from alkenyl and alkyl radicals comprising from 12 to 21 carbon atoms,
- R₇ is methyl, and
- R₈ is hydrogen.
- 56. (Original) A composition according to claim 55, wherein said R_5 and R_6 , which may be identical or different, are independently chosen from radicals derived from tallow fatty acid.
- 57. (Original) A composition according to claim 41, wherein said diquaternary ammonium salts comprise propane tallow diammonium dichloride.
- 58. (Original) A composition according to claim 41, wherein said R_{15} alkyl radicals of said quaternary ammonium salts of formula (VII) are chosen from linear and branched C_1 - C_6 alkyl radicals.
- 59. (Original) A composition according to claim 58, wherein said R_{15} radicals are linear radicals.
- 60. (Original) A composition according to claim 59, wherein said R₁₅, radicals are chosen from methyl, ethyl, hydroxyethyl and dihydroxypropyl.
- 61. (Original) A composition according to claim 60, wherein said R_{15} radicals are chosen from methyl and ethyl.

- 62. (Original) A composition according to claim 41, wherein said sum of x + y + z of said quaternary ammonium salts of formula (VII) ranges from 1-10.
- 63. (Original) A composition according to claim 41, wherein said quaternary ammonium salts of formula (IV) are chosen from (a) compounds comprising at least two fatty aliphatic radicals comprising from 8 to 30 carbon atoms,
- (b) compounds comprising at least one fatty aliphatic radical comprising from 17 to 30 carbon atoms, and
 - (c) compounds comprising at least one aromatic radical.
- 64. (Original) A composition according to claim 41, wherein said at least one cationic surfactant is chosen from behenyltrimethylammonium salts, stearamidopropyldimethyl(myristyl acetate)ammonium salts, Quaternium-27 and Quaternium-83.
- 65. (Original) A composition according to claim 41, wherein the at least one cationic surfactant is present in an amount ranging from 0.1% to 10% by weight relative to the total weight of the composition.
- 66. (Original) A composition according to claim 65, wherein the at least one cationic surfactant is present in an amount ranging from 0.5% to 7% by weight relative to the total weight of the composition.
- 67. (Original) A composition according to claim 66, wherein the at least one cationic surfactant is present in an amount ranging from 1% to 5% by weight relative to the total weight of the composition.
- 68. (Original) A composition according to claim 1 further comprising at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants.

- 69. (Original) A composition according to claim 68, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants is present in an amount ranging from 0.1% to 60% by weight, relative to the total weight of the composition.
- 70. (Original) A composition according to claim 69, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants is present in an amount ranging from 3% to 40% by weight, relative to the total weight of the composition.
- 71. (Original) A composition according to claim 70, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants is present in an amount ranging from 5% to 30% by weight, relative to the total weight of the composition.
- 72. (Original) A composition according to claim 68, wherein the at least one surfactant chosen from anionic, nonionic, and amphoteric surfactants comprises at least one anionic surfactant salt chosen from alkyl sulfates, alkyl ether sulfates, alkylamidoether sulfates, alkylarylpolyether sulfates, monoglyceride sulfates; alkyl sulfonates, alkylaryl phosphates, alkylamide sulfonates, alkylaryl sulfonates, α-olefin sulfonates, paraffin sulfonates; alkyl sulfosuccinates, alkyl ether sulfosuccinates, alkylamide sulfosuccinates; alkyl sulfosuccinamates; alkyl sulfoacetates; alkyl ether phosphates; acyl sarcosinates; acyl isethionates and N-acyltaurates.
- 73. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from anionic surfactants chosen from alkaline salts, sodium salts, ammonium salts, amine salts, amine alcohol salts and magnesium salts.

- 74. (Original) A composition according to claim 72, wherein said alkyl and acyl portions of radicals of said salts comprise 1 and from 8 to 24 carbon atoms, and said aryl portions of radicals of said salts are phenyl.
- 75. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from anionic surfactants chosen from fatty acid salts, acyl lactates wherein the acyl radical comprises 8 to 20 carbon atoms, and weakly anionic surfactants.
- 76. (Original) A composition according to claim 75, wherein said fatty acid salts are chosen from the salts of oleic acid, ricinoleic acid, palmitic acid, stearic acid, coconut oil acid and hydrogenated coconut oil acid.
- 77. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from anionic surfactants chosen from alkyl-D-galactosiduronic acids and their salts, polyoxyalkylenated (C_6 - C_{24}) alkyl ether carboxylic acids and their salts, polyoxyalkylenated (C_6 - C_{24}) alkylaryl ether carboxylic acids and their salts, and polyoxyalkylenated (C_6 - C_{24}) alkylamido ether carboxylic acids and their salts.
- 78. (Original) A composition according to claim 75, wherein said weakly anionic surfactants comprise from 2 to 50 ethylene oxide groups.
- 79. (Original) A composition according to claim 72, wherein said at least one anionic surfactant salt is chosen from alkyl sulfates and alkyl ether sulfates.
- 80. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from nonionic surfactants chosen from polyethoxylated, polypropoxylated and polyglycerolated fatty acids, alkylphenols, α-diols and alcohols having a fatty aliphatic chain comprising 8 to 18 carbon atoms, wherein the number of

ethylene oxide and propylene oxide groups ranges from 2 to 50 and the number of glycerol groups ranges from 2 to 30, copolymers of ethylene oxide and of propylene oxide, condensates of ethylene oxide and of propylene oxide with fatty alcohols, polyethoxylated fatty amides comprising from 2 to 30 mol of ethylene oxide, polyglycerolated fatty amides comprising on average 1 to 5 glycerol groups, polyethoxylated fatty amines comprising from 2 to 30 mol of ethylene oxide, oxyethylenated fatty acid esters of sorbitan comprising from 2 to 30 mol of ethylene oxide, fatty acid esters of sucrose, fatty acid esters of polyethylene glycol, alkylpolyglycosides, N-alkylglucamine derivatives, and amine oxides.

- 81. (Original) A composition according to claim 80, wherein said polyglycerolated fatty amides comprise on average 1.5 to 4 glycerol groups.
- 82. (Original) A composition according to claim 80, wherein said amine oxides are chosen from (C₁₀-C₁₄)alkylamine oxides and N-acylaminopropylmorpholine oxides.
- 83. (Original) A composition according to claim 80, wherein said nonionic surfactants are chosen from alkylpolyglycosides.
- 84. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from amphoteric surfactants chosen from aliphatic secondary and tertiary amine derivatives wherein the aliphatic radical is chosen from linear and branched chain radicals comprising 8 to 22 carbon atoms and comprising at least one water-soluble anionic group, (C_8-C_{20}) alkylbetaines, sulfobetaines, (C_8-C_{20}) alkylamido (C_1-C_6) alkylbetaines; and

 (C_8-C_{20}) alkylamido (C_1-C_6) alkylsulfobetaines.

- 85. (Original) A composition according to claim 84, wherein said at least one water-soluble anionic group is chosen from carboxylates, sulfonates, sulfates, phosphates and phosphonates.
- 86. (Original) A composition according to claim 84, wherein said amine derivatives are chosen from the compounds:

$$R_2CONHCH_2CH_2-N^{+}(R_3)(R_4)(CH_2COO-)$$
 (2)

- R₂ is chosen from alkyl radicals derived from an acid R₂-COOH present in hydrolysed coconut oil, heptyl, nonyl and undecyl radicals,
 - R₃ is chosen from β-hydroxyethyl groups, and
 - R₄ is chosen from carboxymethyl groups;

and

$$R_5CONHCH_2CH_2-N(B)(C)$$
 (3)

- (B) is -CH₂CH₂OX' chosen form a -CH₂CH₂-COOH group and a hydrogen atom,
- (C) is -(CH₂)_Z-Y', with z=1 or 2, and with Y' chosen from -COOH and -CH₂-CHOH-SO₃H radicals,
- R₅ is chosen from alkyl radicals and unsaturated C₁₇ radicals.
- 87. (Original) A composition according to claim 86, wherein said alkyl radicals R_5 are chosen from (a) alkyl radicals of an acid R_5 -COOH present in oils chosen from coconut oil and hydrolysed linseed oil, and (b) C_{17} alkyl radicals and the iso forms.
- 88. (Original) A composition according to claim 86, wherein said alkyl radicals of said R₅ are chosen from alkyl radicals chosen from C₁, C₂, C₁₁ and C₁₃ alkyl radicals.

- 89. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from at least two surfactants of different types.
- 90. (Original) A composition according to claim 89, wherein said at least two surfactants of different types are chosen from (a) more than one anionic surfactant, (b) at least one anionic surfactant and at least one amphoteric surfactant, and (c) at least one anionic surfactant and at least one nonionic surfactant.
- 91. (Original) A composition according to claim 68, wherein said at least one surfactant is chosen from anionic surfactants chosen from $(C_{12}-C_{14})$ alkyl sulfates of sodium, of triethanolamine and of ammonium, $(C_{12}-C_{14})$ alkyl ether sulfates of sodium, of triethanolamine and of ammonium, oxyethylenated with 2.2 mol of ethylene oxide, sodium cocoyl isethionate, and sodium $(C_{14}-C_{16})$ - α -olefin sulfonate, and from an amphoteric surfactant chosen from either:
- amine derivatives comprising disodium cocoamphodipropionate and sodium cocoamphopropionate, or
- amphoteric surfactants of zwitterionic type.
- 92. (Original) A composition according to claim 91, wherein said amphoteric surfactants of zwitterionic type are chosen from alkylbetaines.
- 93. (Original) A composition according to claim 92, wherein said alkylbetaines are chosen from cocobetaine.
- 94. (Original) A composition according to claim 1 further comprising at least one additive chosen from thickeners, fragrances, nacreous agents, preserving agents, silicone sunscreens, non-silicone sunscreens, vitamins, provitamins, cationic, amphoteric, anionic and nonionic polymers, proteins, protein hydrolysates,

18-methyleicosanoic acid, hydroxy acids, panthenol, ceramides, pseudoceramides, and plant, animal, mineral and synthetic oils.

- 95. (Original) A composition according to claim 94, wherein said at least one additive is present in an amount ranging from 0 to 20% by weight relative to the total weight of the composition.
- 96. (Previously Presented) A rinse-out conditioner, a leave-in conditioner, a composition for permanent-waving the hair, a composition for straightening the hair, a composition for dyeing the hair, a composition for bleaching the hair, a rinse-out composition to be applied before a procedure chosen from dyeing, bleaching, permanent-waving and straightening the hair, a rinse-out composition to be applied after a procedure chosen from dyeing, bleaching, permanent-waving and straightening the hair, a rinse-out composition to be applied between the two steps of a permanent-waving operation, a rinse-out composition to be applied between the two steps of a hair-straightening operation, a washing composition for the body, an aqueous lotion, an aqueous-alcoholic lotion, a gel, a milk, a cream, an emulsion, a thickened lotion, a mousse, or a detergent composition comprising a washing base comprising, in a cosmetically acceptable medium, (1) at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10⁶ to 100 x 10⁶ cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1×10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of the polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation, and
- (2) at least one additional silicone, and
- (3) at least one cationic surfactant, wherein the at least one additional silicone comprises an insoluble silicone.
- 97. (Original) An aqueous or aqueous-alcoholic lotion according to claim 96, said lotion being suitable for skin care or for hair care.

- 98. (Original) A gel, a milk, a cream, an emulsion, a thickened lotion or a mousse according to claim 96, wherein said gel, milk, cream, emulsion, thickened lotion or mousse is suitable to be applied to at least one keratin material chosen from skin, nails, eyelashes, lips and hair.
- 99. (Original) A detergent composition comprising a washing base according to claim 96, wherein said composition is chosen from shampoos, shower gels, bubble baths and make-up-removing products.
- 100. (Original) A detergent composition comprising a washing base according to claim 96, wherein said washing base comprises at least one surfactant chosen from anionic, amphoteric, nonionic and cationic surfactants.
- 101. (Previously presented) A detergent composition according to claim 100, wherein said at least one surfactant is present in an amount effective to provide foaming power and detergent power.
- 102. (Original) A detergent composition comprising a washing base according to claim 100, wherein said washing base is present in an amount ranging from 4% to 50% by weight, relative to the total weight of the final composition.
- 103. (Original) A detergent composition comprising a washing base according to claim 102, wherein said washing base is present in an amount ranging from 6% to 35% by weight, relative to the total weight of the final composition.
- 104. (Original) A detergent composition comprising a washing base according to claim 103, wherein said washing base is present in an amount ranging from 8% to 25% by weight, relative to the total weight of the final composition.

- 105. (Previously Presented) A process of washing or caring for a keratin material comprising applying to said keratin material a composition comprising, in a cosmetically acceptable medium, (1) at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10⁶ to 100 x 10⁶ cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (l):

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of the polysiloxane (a), wherein:

- at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation, and
- (2) at least one additional silicone, and
- (3) at least one cationic surfactant,
 wherein the at least one additional silicone comprises an insoluble silicone.
- 106. (Previously Presented) A process for treating a keratin material comprising applying to said keratin material a composition comprising, in a cosmetically acceptable medium, (1) at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100×10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):

$$\begin{array}{c|c}
R_1 & R_2 & R_2 \\
R_1 & S_1 & O & S_1 \\
R_2 & R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2 \\
R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2 \\
R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_2 & R_2
\end{array}$$

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,

- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of the polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation, and
- (2) at least one additional silicone, and
- (3) at least one cationic surfactant,
 wherein the at least one additional silicone comprises an insoluble silicone,
 and optionally rinsing said composition out with water.
- 107. (Original) A process for washing or treating a keratin material according to claim 106, wherein said keratin material is chosen from hair, skin, eyelashes, eyebrows, nails, lips and scalp.
- 108. (Previously Presented) A process for manufacturing a cosmetic product comprising including in said product (1) at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100 x 10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):

$$R_{1} \xrightarrow{R_{2}} \begin{bmatrix} R_{2} \\ R_{2} \end{bmatrix} = \begin{bmatrix} R_{2} \\$$

30

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,

. 1 .

- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1 x 10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R₁ of the polysiloxane (a), wherein:
 - at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation, and
- (2) at least one additional silicone, and
- (3) at least one cationic surfactant,
 wherein the at least one additional silicone comprises an insoluble silicone.
- 109. (Previously Presented) A composition according to claim 15, wherein the at least one additional silicone is polydimethylsiloxane.
- 110. (Previously Presented) A composition according to claim 109, wherein the at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100 x 10^6 cP, is the copolymer polydimethylsiloxane containing α,ω -vinyl groups/polydimethylsiloxane containing α,ω -hydrogeno groups.

- 111. (Previously Presented) A composition according to claim 110, wherein the composition is a rinse-out conditioner for hair.
- 112. (Previously Presented) A rinse out conditioner for the hair comprising, in a cosmetically acceptable medium, (1) at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100 x 10^6 cP, resulting from the addition reaction, in the presence of a catalyst, of:
 - (a) at least one polysiloxane of formula (I):

$$R_{1} \xrightarrow{\begin{array}{c|c} R_{2} \\ \hline \end{array}} O \xrightarrow{\begin{array}{c} R_{2} \\ \hline \end{array}} O \xrightarrow{\begin{array}{c} R_{2} \\ \hline \end{array}} O \xrightarrow{\begin{array}{c} R_{2} \\ \hline \end{array}} R_{1} \qquad (I)$$

- R₁, which may be identical or different, are independently chosen from groups that can react by chain addition reaction,
- R₂ in formula (I), which may be identical or different, are independently chosen from alkyl, alkenyl, cycloalkyl, aryl, hydroxyl, and alkylaryl groups, optionally comprising at least one functional group,
- n is an integer wherein the polysiloxane of formula (I) has a kinematic viscosity ranging from 1 to 1×10^6 mm²/s; and
- (b) at least one silicone compound comprising at least one and not more than two groups capable of reacting with the groups R_1 of the polysiloxane (a), wherein:

- at least one of the compounds of type (a) and (b) comprises an aliphatic group comprising an ethylenic unsaturation,
- wherein said at least one silicone copolymer with a dynamic viscosity ranging from 1 x 10^6 to 100 x 10^6 cP, is a cationic emulsion comprising a copolymer of polydimethylsiloxane containing α,ω -vinyl groups/polydimethylsiloxane containing α,ω -hydrogeno groups;
- (2) at least one additional silicone in the form of a polydimethylsiloxane, wherein the at least one additional silicone comprises an insoluble silicone;
 - (3) at least one cationic surfactant; and
 - (4) at least one alcohol.

Attorrfey Docket No.: 05725.0782-00

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

Experimental Results and Declaration under 37 C.F.R. § 1.132 submitted by Appellants on March 4, 2004.

The Examiner noted that the Declaration had been considered in the Final Office Action dated May 19, 2004, at 10.



PATENT Customer No. 22,852 Attorney Docket No. 5725.0782-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re A	Application of:)
Sand	rine DECOSTER et al.) Group Art Unit: 1617
Application No.: 09/692,749		Examiner: Gina C. Yu
Filed:	October 20, 2000))
For:	COSMETIC COMPOSITIONS COMPRISING AT LEAST ONE SILICONE COPOLYMER AND AT LEAST ONE ADDITIONAL SILICONE, AND USES THEREOF))))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

- I, Véronique MAHE, declare and state that:
- 1. I am a French citizen, residing at 90 Avenue de Cherbourg, Vaux sur seine 78740, France.
- 2. I have been awarded a 3rd degree in Chemistry & Cosmetic from the ISIPCA.
- 3. I have been employed by L'ORÉAL since 2002, and I am presently a Lab manager in the hair care research laboratory at L'ORÉAL. During my employment at

Application No.: 09/692,749

Attorney Docket No.: 05725.0782-00

L'ORÉAL, I have been engaged in the research and development of hair care Products.

- 4. I performed the experiment described below at the direction of one of the three inventors of the above-identified application.
- 5. Given my education and experience, particularly in the area of hair care, I consider myself able to provide the following testimony based on experiments conducted by me or under my direct supervision.

COMPARATIVE TESTING

Comparative testing was performed with inventive Composition A and comparative Composition B. Composition A was prepared according to the present invention, containing a silicone copolymer, a cationic surfactant, and an additional silicone that is insoluble. Composition B was prepared in accordance with the cited prior art, containing a water soluble silicone.

I. <u>COMPOSITIONS</u>

The test compositions are summarized in the following table and described in detail below:

	Composition A (Invention)	Composition B
-Cetyl and stearyl alcohol	3 g	3 g
-cetyltrimethylammonium chloride	2,5 gAM	2,5 gAM
-Cationic emulsion containing 67% AM of copolymer of polydimethyl siloxane containing α,ω -vinyl groups/ polydimethyl siloxane containing α,ω -hydrogeno groups (DC-1997 from Dow Corning)	1.8 gAM	1.8 gAM
-Polydimethylsiloxane (DC200 Fluid- 60,000CS from Dow Corning)	1 g	, ,

Attorney Docket No.: 05725.0782-00

insoluble Silicone		
-Polydiméthylsiloxane à groupement ammonium (ABILQUAT 3474 de GOLDSCHMIDT) water soluble silicone	-	1 g
-Fragrance, preserving agents	qs	qs
-Water	100 g	

II. <u>CONDITIONING PROCESS</u>

At the time of use, each of the above compositions was applied to ten samples of washed and dried hair. The compositions were left to stand on the hair for two minutes, then rinsed off with water and dried.

III. <u>DISENTANGLING DETERMINATION</u>

Skilled persons assessed the disentangling of the dried hair on a scale of 1 to 5, with 5 being the best.

IV. RESULTS

The results are given below as an average of the scores for the ten samples tested with each composition:

A: 3.3

B: 2.7

These results show that the hair treated with the composition of the invention comprising insoluble silicone showed improved disentangling, by 22%, over the composition of the prior art comprising water soluble silicone.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false

² Attorney Docket No.: 05725.0782-00

statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: February, the 27. 2004

By: Mme. Veropique Mahé

Attorney Docket No.: 05725.0782-00

Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

Appeal No. 2003-2140, Ex parte Sandrine DECOSTER et al., decision dated August 25, 2004, Scheiner, Administrative Patent Judge.





TLI MOSTOMB 5725-785

The opinion in support of the decision being entered today was <u>not</u> written for publication and is not binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte SA

Ex parte SANDRINE DECOSTER, VERONIQUE DOUIN

and VIRGINIE BAILLY

AUG 27 2004

PER EPAM, HENDERSON, FARABOW, GARRETT & DUNNER, LLP Appeal No. 2003-2140 Application No. 09/692,716 MAILED

AUG 2 5 2004

U.S. PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

Before WILLIAM F. SMITH, SCHEINER and MILLS, Administrative Patent Judges. SCHEINER, Administrative Patent Judge.

VACATUR AND REMAND TO THE EXAMINER

On November 28, 2003, having considered appellants' Brief on Appeal (paper no. 19, filed June 4, 2003), and the examiner's Answer (paper no. 20, entered August 26, 2003), a panel of the Board handed down a decision "on brief," <u>i.e.</u>, without an oral hearing, affirming the examiner's final rejection of claims 1 thorough 104, all of the claims pending in the application. Subsequently, a communication (paper no. 25) was received from appellants informing the Board that a Reply Brief and a separate Request for Oral Hearing had been submitted on October 27, 2003, and requesting that "the Decision mailed November 28, 2003, [] be vacated in order to have the October 27, 2003, Reply Brief considered and [an] Oral Hearing scheduled."

-macabala

¹ Administrative Patent Judge Paul Lieberman retired subsequent to the Board's decision. Accordingly, Administrative Patent Judge William F. Smith has been substituted for Administrative Patent Judge Lieberman. <u>See In re Bose Corp.</u>, 772 F.2d 866, 869, 227 USPQ 1, 4 (Fed. Cir. 1985).

We have determined that both the Reply Brief and the Request for Oral Hearing were timely filed, but were not entered into the record before the application was forwarded to the Board for decision. As this board functions as a board of review,² and the Reply Brief has not yet been considered or otherwise acknowledged by the examiner, this case is not in condition for a decision on appeal. Accordingly, we vacate³ the Decision of the Board entered November 28, 2003 and remand the application to the jurisdiction of the examiner to consider appellants' Reply Brief and take appropriate action.

² 35 U.S.C. § 6 (b) states that "[t]he [board] shall . . . review adverse decisions of examiners upon applications for patents . . ."

³ The term "vacate" means to set aside or void. <u>Black's Law Dictionary</u> 1075 (abridged 6th ed. 1991). When the board vacates a decision and remands the application to the examiner, it is as if the decision had never been handed down, and jurisdiction over the application on appeal is returned to the examiner for further action.

This application, by virtue of its "special" status requires an immediate action.

MPEP § 708.01 (7th ed., rev. 1, February 2000). It is important that the Board be informed promptly of any action affecting the appeal in this case. Should the case be returned to the jurisdiction of the Board, appellants will have the opportunity to schedule and oral hearing.

VACATED AND REMANDED

William F. Smith

Administrative Patent Judge

) BOARD OF PATENT

Toni R. Scheiner

Administrative Patent Judge

) APPEALS AND

INTERFERENCES

Demetra J. Mills

Administrative Patent Judge

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP 1300 I STREET, NW WASHINGTON DC 20005